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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,635	07/02/2001	Alain Lebrun	33774	5824

116 7590 04/17/2002

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EXAMINER

PALABRICA, RICARDO J

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 04/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/869,635	Applicant(s) LEBRUN ET AL.	
	Examiner Rick Palabrica	Art Unit 3641	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

1. Applicant's election without traverse of Group II (Apparatus for discriminating between nuclear fuels), along with species IIA and IIa, and claims 9 and 10, in Paper No. 6 is acknowledged. Said Paper also cancelled claims 7 and 8.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - On page 3, line 24, the period after the word "radiation" should be deleted.
  - On page 7, line 20, the antecedent of "the other" is unclear.
  - On page 8, line 24, the term "similar" should be replaced by a more descriptive term such as "equal."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitations "the storage cells" in line 2, "the means of attaching..." in lines 4 and 5, "the means of placing..." in line 6, and "the cells" in line 6. There is insufficient antecedent basis for each of these limitations in the claim. Also, the antecedent of "it" in line 4 is unclear.

Claim 10 recites the limitations "the whole detection area" in line 4, and "the transversal direction" in line 5. There is insufficient antecedent basis for each of these limitations in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Michaelis (Atomkernenergie 14.Jg. (1969)) or Phillips et al. (Analytical Chemistry, Vol. 47, No. 1, January 1975) or Gesellschaft Fuer Kernforschung (GB 1,197,099).

Michaelis discloses the applicant's inventive concept of an apparatus for assay of nuclear fuels. Said claims read on Michaelis' apparatus for non-destructive analysis by radiative neutron capture (see Fig. 3 and corresponding parts of the document). His set-up comprises a plurality of detectors that include a gamma detector and several

scintillator-photomultiplier counters. Note that the gamma detector is located behind two collimators in continuation, with the rear collimator located just in front of said detector and a front collimator with a slot section in transverse direction of a fuel element. As to the limitation in said claims regarding a water-proof casing, it is conventional to enclose any device for use in underwater applications in such type of casing in order to protect its physical and functional integrity, and to do so would have been prima facie obvious.

Phillips discloses a non-destructive gamma scanning method for quantitative determination of fission products in irradiated fuel pins. Said claims read on Phillips' Fig. 1 and corresponding parts of the document. His apparatus comprises NaI and GeLi detectors inside a shielded structure. The GeLi gamma-ray detector is located behind at least two collimators in continuation, with a rear collimator located just in front of the said detector, and a front collimator with a slot section extended in the transversal direction of a fuel pin.

Gesellschaft Fuer Kernforschung discloses a device for non-destructive control of nuclear fuels (see Fig. 1 and corresponding parts of the specification). The device comprises slow neutron detectors (3, 4) and a gamma counter (5). Note that the gamma counter is located behind at least two collimators in continuation, with the rear collimator (opening of lead shield 7) located just in front of said detector and a front collimator in transverse direction of a fuel element (1).

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As to the limitation in said claims regarding a waterproof casing, it is conventional to enclose any device for use in underwater applications in such type of casing in order to protect its physical and functional integrity, and to do so would have been prima facie obvious.

The "whereby" clause in claim 9 is essentially a method limitation or statement of intended or desired use. Thus this clause, as well as other statements of intended use, do not serve to patentably distinguish the claimed structure over that of the reference.

See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 152 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2<sup>nd</sup> 1647.

See also MPEP 2114 that states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Dally, 263 F.2d 844, 847, 120 USPQ 528, 531.

Apparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

In any case, any provisions for attachment or for placement of the water-proof casing at a desired location would also be conventional and the addition of these features to the casing would be also be prima facie obvious

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by either one of Michaeli or Phillips or Gesellschaft Fuer Kernforschung, to include a water-proof enclosure to gain the advantages thereof (i.e., protection from water-damage), because such modification is no more than the use of conventional designs/techniques within the nuclear instrumentation art.

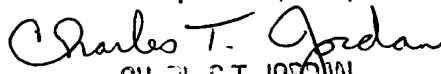
### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References A-C pertain to assay of irradiated nuclear fuel and are relevant to the claimed inventive concept.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 703-306-5756. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0285 for regular communications and 703-305-0285 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, telephone number is 703-308-1113.

  
CHARLES T. JORDAN  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY CENTER 3000

RJP  
April 10, 2002